MOCK TEST PAPER - 2

INTERMEDIATE (IPC): GROUP – I

PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answers in Hindi will not be valued.

*Question No. **1** is compulsory.*

*Attempt any **five** questions from the remaining **six** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. Answer the following:

   (a) Arnav Ltd. is producing a single product, has the profit-volume ratio of 40%. The company wishes to increase the selling price by 10% which will increase the variable cost by 5%. The fixed overheads will increase from its present level of Rs.20,00,000 to Rs.30,00,000.

   Required:

   (i) Compute the company's original break-even point sales and the break-even point sales after the increase.

   (ii) You are also required to ascertain the sales value for the firm to make a profit of Rs.4,50,000 after the increase.

   (b) A company manufactures a product from a raw material, which is purchased at Rs. 54 per kg. The company incurs a handling cost of Rs.1,500 plus freight of Rs.4,000 per order. The incremental carrying cost of inventory of raw material is Rs.1.50 per kg per month. In addition, the cost of working capital finance on the investment in inventory of raw material is Rs.8 per kg per annum. The annual production of the product is 96,000 units and 4 units are obtained from one kg of raw material.

   Required:

   (i) Calculate the economic order quantity of raw materials.

   (ii) Advise, how frequently orders should be placed for procurement.

   (iii) If the company proposes to rationalize placement of orders on quarterly basis, what percentage of discount in the price of raw materials should be negotiated?

   (c) A Ltd. and B Ltd. are identical in every respect except capital structure. A Ltd. does not employ debt in its capital structure, whereas B Ltd. employs 12% debentures amounting to Rs. 10 lakh. Assuming that -

   (i) All assumptions of M – M model are met

   (ii) The income tax rate is 30%

   (iii) EBIT is Rs. 2,50,000 and

   (iv) The equity capitalization rate of A Ltd. is 20%.

   Calculate the average Value of both the companies.

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(d) NSG Ltd. has sales of Rs. 75,00,000, variable cost of Rs. 42,00,000 and fixed cost of Rs. 6,00,000. The Present capital structure of NSG is as follows:

Equity Shares	Rs. 55,00,000
Debt (12%)	Rs. 45,00,000
Total	Rs. 1,00,00,000

(i) What is the ROCE of NSG Ltd.

(ii) Does NSG have a favourable financial leverage?

(iii) If the industry average of asset turnover is 3, does it have a high or low asset leverage?

(iv) What are the leverages of NSG?

(v) At what level of sales, will the EBT be zero? (4 × 5 = 20 Marks)

2. (a) Arnav Ltd. manufactures a product Q, the standard cost of which is as follows:

	Standard Cost per unit (Rs.)
Direct Material	600
Direct labour:	
- Skilled @ Rs.80 per hour	120
- Unskilled @ Rs.60 per hour	90
Variable overheads	75
Fixed overheads	30
	915

During the month just ended 4,000 units of Q were produced. The actual labour cost was as follows.

	Rate per hour (Rs.)	**Cost (Rs.)**
Skilled	87.50	5,77,500
Unskilled	55.00	2,97,000

10% of the labour time was lost due to idle time. The standard idle time was 7.5% of labour time. Arnav Ltd. has budgeted to produce 4,200 units of Q. Arnav Ltd. absorbs its overheads on direct labour hour (effective hours) basis. Actual fixed and variable overheads incurred were Rs.1,55,000 and Rs.2,85,000 respectively.

Calculate:

(i) Labour rate variance;

(ii) Labour efficiency variance;

(iii) Labour mix variance;

(iv) Labour yield variance;

(v) Labour idle time variance;

(vi) Variable overhead expenditure variance and

(vii) Variable overhead efficiency variance. **(8 Marks)**

(b) The Modern Chemicals Ltd. requires Rs. 25,00,000 for a new plant. This plant is expected to yield earnings before interest and taxes of Rs. 5,00,000. While deciding about the financial plan, the company considers the objective of maximising earnings per share. It has three alternatives to

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finance the project- by raising debt of Rs. 2,50,000 or Rs. 10,00,000 or Rs. 15,00,000 and the balance, in each case, by issuing equity shares. The company's share is currently selling at Rs. 150, but is expected to decline to Rs. 125 in case the funds are borrowed in excess of Rs. 10,00,000. The funds can be borrowed at the rate of 10% upto Rs. 2,50,000, at 15% over Rs. 2,50,000 and upto Rs. 10,00,000 and at 20% over Rs. 10,00,000. The tax rate applicable to the company is 50%. Which form of financing should the company choose? **(8 Marks)**

3. (a) DKG Airlines owns single passenger aircraft and operates between Melbourne and Delhi only. Flight leaves Melbourne on Monday and Thursday and departs from Delhi on Wednesday and Saturday. DKG Airlines cannot afford any more flight between Melbourne and Delhi. Only economical class seats are available on its flight and all tickets are booked by travel agents. The following information are collected.

Seating capacity per plane	360
Average passengers per flight	250
Flights per week	4
Flights per year	208
Average one-way fare	Rs.50,000
Variable fuel cost	Rs.28,00,000 per flight
Food service to passengers (not charged to Passengers)	Rs.2,600 per passenger
Commission to travel agents	15% of fare
Fixed annual lease cost allocated to each flight	Rs. 15,30,000 per flight
Fixed ground services (maintenance, check in, Baggage handling cost) allocated to each flight	Rs.1,70,000 per flight
Fixed salaries of flight crew allocated to each flight	Rs.6,50,000 per flight

For the sake of simplicity assume that fuel cost is unaffected by the actual number of passengers on a flight.

Required:

(i) What is the operating income that DKG Airlines makes on each way flight between Melbourne and Delhi?

(ii) The market research department of DKG Airlines indicates that lowering the average one-way fare to Rs. 48,000 and increase in agents' commission to 17.5% will increase the average number of passenger per flight to 275. Should DKG Airlines lower its fare? **(8 Marks)**

(b) RST Limited is considering relaxing its present credit policy and is in the process of evaluating two proposed polices. Currently, the firm has annual credit sales of Rs 225 lakhs and accounts receivable turnover ratio of 5 times a year. The current level of loss due to bad debts is Rs.7,50,000. The firm is required to give a return of 20% on the investment in new accounts receivables. The company's variable costs are 60% of the selling price. Given the following information, which is a better option? (Amount in lakhs)

	Present Policy	Policy Option I	Policy Option II
Annual credit sales (Rs)	225	275	350
Accounts receivable turnover ratio	5	4	3
Bad debt losses (Rs)	7.5	22.5	47.5

(8 Marks)

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4. (a) The following information relate to Process A:

(i)	Opening Work-in-Process	8,000 units at Rs.15,00,000
	Degree of Completion: Material	100%
	Labour and Overhead	60%
(ii)	Input 1,82,000 units at	Rs.1,47,50,000
(iii)	Wages paid	Rs.68,12,000
(iv)	Overheads paid	Rs.34,06,000
(v)	Units scrapped	14,000
	Degree of Completion: Material	100%
	Wages and Overheads	80%
(vi)	Closing Work - in- Process	18,000 units
	Degree of Completion: Material	100%
	Wages and Overheads	70%
(vii)	Units completed and transferred to next process 1,58,000 units	
(viii)	Normal loss 10% of total input including opening WIP	
(ix)	Scrap value is Rs.15 per unit to be adjusted out of direct material cost	

You are required to compute on the basis of FIFO

(i) Equivalent Production

(ii) Cost per unit

(iii) Value of units transferred to next process. **(8 Marks)**

(b) A person opened an account on April, 20X8 with a deposit of Rs. 800. The account paid 6% interest compounded quarterly. On October 1, 20X8, he closed the account and added enough additional money to invest in a 6-month Time Deposit for Rs. 1,000 earning 6% compounded monthly.

(i) How much additional amount did the person invest on October 1?

(ii) What was the maturity value of his Time Deposit on April 1, 20X9?

(iii) How much total interest was earned?

Given that $(1+i)^n$ is 1.03022500 for $i = 1\frac{1}{2}\%$, n = 2 and is 1.03037751 for $i = \frac{1}{2}\%$ and $n = 6$.

(8 Marks)

5. (a) State the limitations of cost accounting.

(b) Differentiate between Allocation and Apportionment of expenses.

(c) Discuss in briefly any two long term sources of finance for a partnership firm.

(d) Discuss the limitations of cash flow analysis. **(4 × 4 =16 Marks)**

6. (a) C Ltd. manufactures two products using two types of materials and one grade of labour. Shown below is an extract from the company's working papers for the next month's budget:

	Product-A	Product-B
Budgeted sales (in units)	2,400	3,600
Budgeted material consumption per unit (in kg):		
Material-X	5	3

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Material-Y	4	6
Standard labour hours allowed per unit of product	3	5

Material-X and Material-Y cost Rs. 4 and Rs. 6 per kg and labours are paid Rs. 25 per hour. Overtime premium is 50% and is paid, if a worker works for more than 40 hours a week. There are 180 direct workers.

The target productivity ratio (or efficiency ratio) for the productive hours worked by the direct workers in actually manufacturing the products is 80%. In addition, the non-productive down-time is budgeted at 20% of the productive hours worked.

There are four 5-days weeks in the budgeted period and it is anticipated that sales and production will occur evenly throughout the whole period.

It is anticipated that stock at the beginning of the period will be:

Product-A	400 units
Product-B	200 units
Material-X	1,000 kg.
Material-Y	500 kg.

The anticipated closing stocks for budget period are as below:

Product-A	4 days sales
Product-B	5 days sales
Material-X	10 days consumption
Material-Y	6 days consumption

Required:

Calculate the Material Purchase Budget and the Wages Budget for the direct workers, showing the quantities and values, for the next month. **(8 Marks)**

(b) ABC Ltd. has supplied the following information at the beginning and at the end of the year 20X8-X9:

	1.4.20X8	**31.3.20X9**
	Rs.	**Rs.**
Plant less depreciation	95,000	2,13,000
Investment (long term)	1,98,000	4,35,000
Debentures	3,75,000	1,05,000
Equity capital	6,00,000	6,00,000
Reserves & Surplus	3,57,000	6,15,000

Although ABC Ltd. could not provide complete Balance Sheet and Profit & Loss Account, it supplied the following further information:

(i) An interim dividend of Rs. 54,000 has been paid during the year 20X8-X9.

(ii) The net income includes Rs. 20,000 on account of profit on sale of plant. There has been an increase of Rs. 1,40,000 in the gross value of plant after a plant having gross value of Rs.43,500, whose written down value was Rs. 28,500, was disposed off during the year.

From the information given above, you are required to prepare a Funds Flow Statement. **(8 Marks)**

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7. Answer any **four** of the following:

(a) Explain Bedaux system of wages payment.

(b) Discuss with example the level of activity method of segregating semi-variable costs into fixed and variable costs.

(c) State the different kinds of float with reference to management of cash.

(d) Discuss the limitations of financial ratios.

(e) (i) Explain Product cost in cost accounting.

(ii) Explain the term 'Payback reciprocal'. **(4 × 4 =16 Marks)**

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